Empowered by Innovation NEC

MULTISYNC® EX SERIES

W-LED BACKLIGHT SLIM-SLIM ULTRA-MODERN DISPLAY

The Triumph of Style and Substance

A TRADITION IN INNOVATION

THE MULTISYNC ADVANTAGE

Today NEC is the biggest name in display solutions, we develop many of the leading monitors used by blue chip businesses worldwide.

The NEC MultiSync® range carries a tradition of superb image quality, innovation and reliability and set the standards that other display manufacturers have followed over the last decades. MultiSync displays allow our customers to concentrate on their business demands, in the confidence they experience optimum image quality and performance where and when it matters.

MultiSync means much more to NEC than innovation, it represents uncompromising standards and total customer confidence.

LIGHTER, THINNER AND MORE ATTRACTIVE

With the MultiSync EX Series, nothing changed, but we believe we have rewritten the rules on how office displays will be used and perceived. With the EX range, the image is everything and how it interrelates with the viewer and their surroundings. Lighter, thinner, more attractive and more modular displays that can integrate into desktop solutions, matrixes and fully ergonomic stands whilst combining the best of future compatibility and ecological standards.

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MULTISYNC ECO PERFORMANCE

The Vision of the Future

With its 23" wide 'Full HD' panel, eco features and total ergonomics, the MultiSync EX231W is all you would expect from an NEC MultiSync display, but the EX231W goes further with new innovative features and all in the smallest profile display we ever made.

Normally the elegant slim-slim appearance would mean compromise, but instead we added amongst its' enhancements a human sensor, bezel touch controls, a DisplayPort connector and an easily accessible USB port for video conferencing.

The EX Series stand and axis are now 75% smaller than any stand we ever made, but still provide comfortable and impressive levels of height adjustment, tilt, rotation and swivel. We believe it's the smallest fully ergonomic stand currently on the market and further we integrated into the extremely slim and shallow bezel both a human and ambient light sensor and touch bezel OSD controls.

Cooling such a slightly profiled product was also a challenge while maintaining uniformity and long term performance, so we developed commercial grade circuitry that can be relied upon in heavy duty cycles, but draws less power and generates less heat. The innovative 'no radiation hole' cabinet limits emissions.

The EX delivers all that is expected from the NEC MultiSync brand in a high performance, future-ready, stylish and ecological package.

EX SERIES BENEFITS

NEXT GENERATION SLIM-SLIM CABINET	AMBIENT LIGHT SENSOR
FULL HD 23" WIDE FORMAT DISPLAY	AUTO BRIGHTNESS CONTENT ADJUSTMENT
LCD WITH WHITE LED LOW POWER BACKLIGHT PANEL	OSD NAVIGATION VIA BEZEL TOUCH POINTS
TOTAL ERGONOMICS HEIGHT, TILT, SWIVEL AND ROTATE	ONE BUTTON RELEASE VESA MOUNT DISPLAY PANEL
FUTURE READY DISPLAYPORT INPUT	NO HOLE RADIATION CABINET
ULTRA-LIGHT MODULAR 2.8KG PANEL	EASILY ACCESSIBLE USB PORT
HUMAN SENSOR WITH VIEWER ABSENCE POWER DOWN	PURE ANTHRACITE OR OFFICE WHITE CABINETS

ADVANCED CONNECTIVITY

DISPLAYPORT

The DisplayPort connector is compact and features an in-built locking mechanism, which can be disengaged with a simple button press, giving you hassle-free installation. Longer cable lengths and 10-bit colour support ensure that you enjoy greater installation flexibility as well as an enhanced viewing experience with future-proof peace of mind.

IN-BUILT USB CONNECTION

The integrated USB connection allows the simple addition of a webcam, or microphone or other USB devices that can be placed neatly at the top of the display.

Advanced Connectivity All the Connectivity for today and tomorrow means a safe investment and peace of mind for the future

Kensington lock slot
For attachment of Kensington locking device
DisplayPort
The multiple Connector of the future
DVI-i
Allows connection to DVI-D or DVI-A on host PC
USB Connectors
Rear Mount and Top Bezel USB Connector Points

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DESIGNED IN JAPAN

THE TRIUMPH OF STYLE AND SUBSTANCE

The EX Series has an attractive blend of pure and elegant Japanese styling despite the remarkably powerful and innovative technology within. The very best of Japanese understatement, reliability and performance.

We call this Office Cool, because at it's heart is lower power consumption and less heat output but we put it in a housing with the appearance and connectivity to take office displays into the next generation.

The EX Series are available in pure anthracite or office white to blend perfectly into the most modern business environments.

office cool

EX

NEXT GENERATION PERSONAL WORKSPACE

IDEAL FOR THE USER OF THE FUTURE

The unique and elegant cabinet for our EX Series has been designed by a renowned Japanese design company following research into general trends and changes to the office workspace in the future.

Offices are becoming simpler and cleaner with the design of displays increasingly becoming an identifiable feature.

We chose a minimalist approach to allow what really matters, the displayed content, to take precedence. The image itself and how it can be positioned for optimum working is the real priority to our users, therefore the EX Series has no distracting characteristics, is very shallow in depth with a very thin frame and very slim mount, but including total placement ergonomics.

The EX Series also feature 'Full HD' Wide format panels that are recognised as providing the best combination of quality and productivity, ideal for viewing side by side office documents or displaying the latest media. There are two Digital Inputs, which include DisplayPort, the multi-purpose connector of the future. We utilise full VESA mount compatibility for easy integration into desking solutions and to keep the perfect appearance we integrated cable management.

IDEAL FOR THE BUSINESS OF THE FUTURE

The needs in the desktop display market are changing, with increasing demand for lower power consumption and eco sustainability. Also communication and human interactivity is something which is important for the desktop display as it is the interface not only to your computer but to the whole corporate network or the outside world.

Design and appearance are becoming more relevant in the future.

The EX Series ultra-slim panels are light, modular and easy to integrate into larger tiling solutions, at the same time they draw less power and generate less heat. Therefore in organisations where heat output, power draw, space and ergonomic placement of screens, backed by absolute performance are essential, such as the finance sector, the new EX Series provides all the answers.

Total User Comfort Ergonomics

It is not just a superior image that helps improve productivity and accuracy. A commitment to optimise the user comfort during the work experience creates a proactive, satisfying and therefore more productive working environment

PROTECTING THE ENVIRONMENT

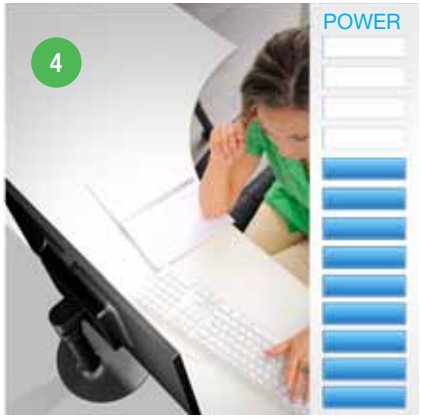
WHITE LED BACKLIGHT

The LED Backlight not only offers improved performance, but also draws less power and most importantly it replaces CCFL backlighting and is therefore free from Mercury and Halogen, significantly reducing any harm to the environment associated with this display.

1. LCD displays the final colour rich image
2. Light Diffuser, redirects the light in parallel to the LCD Panel
3. LED Backlight to provide uniform brightness

Ambient Light Sensor

Image 4 below shows a typical reduction in power that may be experienced when this feature is in operation



AMBIENT LIGHT SENSOR

The ambient light sensor monitors the ambient light and reduces or increases the display brightness according to changes in the ambient light surroundings. This means only the power used to make the picture clear is drawn at any time.

AUTO-BRIGHTNESS SENSOR AND ECO MODES

Further to our new ECO features, the EX Series includes an auto-brightness sensor that adjusts the screen brightness, taking into account the power needed to display the content accurately and also includes a dual setting eco mode option.

ECO POWER REDUCTION INNOVATION

HUMAN SENSOR

The human sensor monitors the existence of a viewer in front of the display. When the user leaves for a preset period of time, the monitor switches into hibernation ready to restart on the viewer's return.

Human Sensor

Recognises there is no viewer and puts the display into stand-by using considerably reduced power

A GREEN VISION DISPLAY BY NEC

A FIRM EYE ON THE ENVIRONMENT

NEC was one of the first major manufacturers to seriously adopt ecological policies and we quickly incorporated eco values into our MultiSync range. Simply speaking the EX Series are probably our greenest displays yet.

With the latest LED backlight technology the EX231W operates on a very low power consumption level, while we also eliminate hazardous substances like mercury in the backlights. Sustainability is at the heart of the product concept with human, luminance and ambient light sensors, to detect changes in light and the presence of a viewer, so the display constantly adjusts to the power level needed and no more.

Due to the extremely light and thin concept and packaging innovation, we use less materials in production of the display itself and in it's transportation. There is less 'difficult to dispose of' waste, less consumption and we can ship 100 EX Series displays using the same resource as was previously required to ship 60 displays.

The award winning NEC 'Green Vision' initiative which is dedicated to the dual concept of sustainability and productivity is in safe hands with the EX Series.

16.4mm bezel depth

The minimalist slim-slim lines are accentuated with one of the thinnest cabinet depths available for a business display, the ultimate in elegance

White LED backlight

The white LED backlight provides the best combination of picture performance, power reduction and elimination of harmful substances.

Touch bezel controls

Stylish OSD controls and adjustment buttons are invisibly integrated into the bezel in a stylish and modern way. Also integrated into the bezel are the innovative human sensor and ambient light sensor

Eco sensors

A built-in human sensor adjusts the power level whilst the viewer is not present, auto brightness function adjusts screen brightness against content and the ambient light sensor adjusts brightness in tune with ambient light conditions; all saving power

USB port

Located at the top of the display for easy connection of a webcam or microphone, or install USB speakers

Quick detach panel

With a one button release and simple slot in reattachment and its VESA mount the display is ideal for connecting to mounting arms, ceiling and wall mounts and multi-screen set ups

2.8kg panel

The lightest display head available, so light that it can be easily carried around and relocated, ideal for modern light mounting solutions

No hole radiation

The display does not feature hole radiation. Power is reduced and heat is controlled with ecological benefits of reduced consumption

Elegant slim design

No compromise on functionality in a pure, minimalist design that places the emphasis on the image and usability first

Ergonomics

Fully adjustable stand with tilt, swivel, rotate and height adjustment

SPECIFICATIONS

MULTISYNC® EX231W

DISPLAY	**Panel Technology**	**TN TFT (W-LED)**
	Screen size	**23.0 inch / 58.4 cm**
	Aspect ratio	**16:9**
	Pixel Pitch	**0.265 mm**
	Brightness (typical)	**250 cd/m2**
	Contrast (typical)	**1000:1 (25000:1 typ. Dynamic Contrast Ratio)**
	Viewing Angle	**176 horizontal / 170 vertical (typ. at contrast ratio 5:1)**
	Response Time (typical)	**5ms (white to black and black to white, 2.5ms per change)**
	Colours	**16.77 Million (8-bit per colour)**
SYNCHRONIZATION RANGE	Horizontal	31.5 - 83.0 kHz
	Vertical	56.0 - 75.0 Hz
RESOLUTION	Native	1920 x 1080 at 60 Hz
	Supported	1920 x 1080; 1680 x 1050; 1440 x 1050; 1400 x 1050; 1360 x 768; 1280 x 1024; 1152 x 864; 1024 x 768; 800 x 600; 720 x 400; 640 x 480
INPUTS	Digital / Analog	1 x Display Port, 1 x DVI-I
POWER CONSUMPTION	Typical	32 W (max.)
	Eco Mode ON	24 W
	Power Savings Mode	< 0.38 W
	Power Supply	100-120V / 220-240 V; 0.60 A/0.35 A; External power supply
ENVIRONMENTAL	Operating Temperature	+5 to +35° C
	Operating Humidity	20 to 80 %
	Storage Temperature	-10° to +60°C
	Storage Humidity	+10% to +85%
ERGONOMICS	Height adjustable Stand	110 mm (Landscape mode)
	Screen Tilt	-5 to +30°
	Screen Swivel	-170 to +170°
	Screen Rotate	0 to 90° (landscape to portrait mode)
BEZEL WIDTH	Bezel Width	14 mm
DIMENSIONS	W x H x D	With stand (net) 540.2 x 401.03 x 215.0 mm (landscape mode) Without stand (net) 540.2 x 318.3 x4 7.7 mm
WEIGHT	With stand (net)	4.1 kg
	Without stand (net)	2.8 kg
COLOUR VERSIONS	Bezel/ Cabinet Colour Combinations	Black Front Bezel, Black Back Cabinet (Order Code 60002937) White Front Bezel, White Cabinet (Order Code 60002936)
OTHERS	Cable Management	Yes
	Slot for Kensington Lock	Yes
	VESA Mounting	100 x 100 (4 points)
	Plug & Play	VESA DDC/CI; EDID Standard; VESA DDC2B
	Adjust functions:	Auto adjust; Brightness; Colour Control System; Contrast; EcoMode; Expansion Mode; Factory Preset; Language Select; Monitor Information; On-Screen-Display (OSD) Lock-Out; OSD Turn Off; Resolution Notifier; Human Sensor; Ambient Light Sensor; Carbon Meter
	Shipping Content	Monitor; Power Cable; Signal Cable DVI-D - DVI-D; Signal Cable VGA - DVI-A; AC Adaptor; USB Cable CD-ROM; Sales Office List; User Manual
SAFETY AND ERGONOMICS	Safety and Ergonomics	Epeat™ Gold; CE; TCO 5.0; ErP; TÜV Ergonomics; TÜV GS; GEEA/Energy Label; Energy Star 5.0; FCC Class B; PCT/Gost; UL/C-UL or CSA; CCC; ISO 9241-307 (pixel failure class I); MPR II/ MPR III
WARRANTY	Warranty	3 years warranty incl. backlight

NEC SLIM-SLIM Professional Display

MULTISYNC® EX SERIES

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